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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,695	11/09/2001	Wolfgang Drews	112740-370	2980

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EXAMINER

WOOD, KEVIN S

ART UNIT PAPER NUMBER

2874

DATE MAILED: 04/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No. 09/990,695

Applicant, DREWS, WOLFGANG

Examiner

Kevin S Wood

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8 and 12 is/are rejected.
- 7) ☒ Claim(s) 7 and 9-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: *Brian Healy*

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## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 2, and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear how N is defined within these claims.

Can N be equal to 0 or 1?

3. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 recites the limitations "the at least one input matrix" and "additional input matrix" in the 6<sup>th</sup> and 7<sup>th</sup> lines of the claim. There is insufficient antecedent basis for these limitations in the claim. This claim should be rewritten to clarify what is being claimed.

4. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 4 recites the limitations "at least one of the output matrix" and "additional output matrix" in the 6<sup>th</sup> and 7<sup>th</sup> lines of the claim. There is insufficient antecedent basis for this limitation in the claim. This claim should be rewritten to clarify what is being claimed.

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5. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is meant by the limitation, "the distributor including a distributor input and at least two distributor outputs **on the third side and on at least one input channel**". What is on the **third side** and what is on the **at least one input channel**? This claim should be rewritten to clarify what is being claimed.

6. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is meant by the limitation, "the switch including a switch output and at least two switch inputs **on the third side and on at least one input channel**". What is on the **third side** and what is on the **at least one output channel**? This claim should be rewritten to clarify what is being claimed.

7. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is meant by **ADP** module. The examiner could not find where **ADP** module was defined in the specification or the claims. It is also unclear how **N** is defined within this claim. Can **N** be equal to 0 or 1?

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***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1 and 3-6 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,115,517 to Shiragaki et al.

Referring to claim 1, Shiragaki et al. discloses all the limitations of the claimed invention. Shiragaki et al. discloses an optical communication network apparatus that includes: a first side have N input channels (111-11n); a second side having N output channels (171-17n); a third side having a plurality of channels (13,14) coupled to the optical data transmission link, the coupling being at least one of an input coupling and an output coupling; an input matrix (102) for the N input channels provided on the first side; an output matrix (103) for the N output channels provided on the second side; and a variably switchable network, wherein the first and second sides are connected to each other and to the input and output channels of the third side via the variably switchable network. See the figures of the reference along with their respective portions of the specification.

Referring to claim 3, Shiragaki et al. discloses all the limitations of the claimed invention. Shiragaki et al. discloses a distributor (121-12n) as part of the switchable

network, the distributor including an input and at least two outputs, where at least one of the distributor outputs leads to an output channel on the second side, and the other distributor output leads to an output on the third side.

Referring to claim 4, Shiragaki et al. discloses all the limitations of the claimed invention. Shiragaki et al. discloses a controllable switch (151-15n) as part of the switchable network, the distributor including at least two inputs and an output, where at least one of the distributor inputs leads to an input channel on the first side, and the other input leads to an input on the third side.

Referring to claim 5, Shiragaki et al. discloses all the limitations of the claimed invention. Shiragaki et al. discloses a distributor (121-12n), the distributor including an input and at least two outputs, where at least one of the distributor outputs leads to an output channel on the second side.

Referring to claim 6, Shiragaki et al. discloses all the limitations of the claimed invention. Shiragaki et al. discloses a controllable switch (151-15n), the distributor including at least two inputs and an output, where at least one of the distributor inputs leads to an input channel on the first side.

#### ***Allowable Subject Matter***

10. Claims 7 and 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claims 2, 8 and 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter:

Referring to claim 2, the prior art does not disclose all the limitations of the claimed invention. The prior art does not disclose that there is an additional output matrix for an additional N output channels provided on the first side; and an additional input matrix for an additional N input channels provided on the second side.

Referring to claim 7, the prior art does not disclose all the limitations of the claimed invention. The prior art does not disclose that the input matrix and the output matrix are provided as switches with a square structure.

Referring to claim 8, the prior art does not disclose all the limitations of the claimed invention. The prior art does not disclose N output switches and N input distributors on the third side.

Referring to claim 9, the prior art does not disclose all the limitations of the claimed invention. The prior art does not disclose the variably switchable network includes a single-redundancy ring backup circuit.

Referring to claim 10, the prior art does not disclose all the limitations of the claimed invention. The prior art does not disclose the variably switchable network includes a two-fiber ring backup with distributed redundancy.

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Referring to claim 11, the prior art does not disclose all the limitations of the claimed invention. The prior art does not disclose the variably switchable network includes a four-fiber ring backup circuit with distributed redundancy.

Referring to claim 12, the prior art does not disclose all the limitations of the claimed invention. The prior art does not disclose that function of the switchable network with switches and distributors are combined in at least one ADP module, for each channel, in an overall ADP module having a total of N ADP modules.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Publication No. 2002/0131678 to Bentivoglio Ravasui et al.

U.S. Patent Publication No. 2002/0044718 to Nishi et al.

U.S. Patent No. 6,366,716 to Graves

Each of these references discloses an optical switching matrix similar to that of the claimed invention.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin S Wood whose telephone number is (703) 605-5296. The examiner can normally be reached on Monday-Thursday (7am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney B Bovernick can be reached on (703) 308-4819. The fax phone




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numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 307-0956.

KSW  
April 22, 2003

A handwritten signature in black ink, appearing to read "Brian Hoody".

Brian Hoody  
Primary Examiner